DOI: 10.12209/issn2708-3845.20230209003

Version: 1.0

Corresponding Author: Akinbade Musiliat Olufunke,

funkeakinbade@yahoo.com

This preprint paper is not peer reviewed. The copyright belongs to all authors. The full text is open access (OA), following CC 4.0 BY-NC-ND.

# MENOPAUSE TRANSITION: AN EMERGING PUBLIC HEALTH CONCERN AND THE ROLE OF NURSES

Akinbade Musiliat Olufunke<sup>1</sup>, Olubiyi Simeon Kayode<sup>2</sup>, Ojo Elizabeth Funmilayo<sup>1</sup>, (1.Department of Nursing Science, College of Medicine and Health Sciences, Afe Babalola University, Ado Ekiti, Ekiti State, Nigeria; 2.Department of Nursing Sciences, College of Health Sciences, University of Ilorin, Kwara State, Nigeria.)

#### **ABSTRACT**

Menopause halts reproductive life of a woman and signpost a gradual decline in ovarian function. This phase of life has significant impact on physical, psychological and social well-being of an individual woman as well as their Life Satisfaction (LS). Menopausal women experienced signs and symptoms which may include; hot flushes; night sweats; osteoporosis, vaginal dryness, reduction of pubic, axillary and head hair; reduces hours of sleep and triggers moodiness. Dynamics associated with menopausal period are reduced cervical size, uterine cavity and fallopian tube; reduction in the size of clitoris, emergence of gray hair on the scalp and the breasts also become less full and solid. These symptoms usually occur in different ways depending on the individual and as such, some women only have mild symptoms and are able to manage themselves.

However, women who experience moderate to severe menopausal symptoms exhibit serious health issues which require medical interventions. Additionally, many women are adversely affected by the accompanying physiological changes of menopause because they are not aware of menopausal transition and sometimes express concerns about their health. Therefore, Public Health Nurses are in the best position by the virtue of their profession to create awareness and sensitize women on menopausal transition and possible symptoms they might experience during this period. This paper presents the concept of menopause; symptoms of menopause; myths associated with menopause; facts about menopause; management and role of Public Health Nurses to improve menopausal women's health and improve Life Satisfaction.

**Keywords**: Menopause, Transition, Public Health Issues.

#### INTRODUCTION

Menopause is the process of engagement when a woman's menstrual cycle stops, while post menopause is the period that follows menopause<sup>[1]</sup>. The woman's body starts producing gradually less progesterone and estrogen during this stage of life, which causes her menstrual cycles to stop naturally, this phase is also known as the climacteric transition. Menopause can occur naturally, prematurely, slowly, involuntarily, surgically, or artificially. A steady decline in ovarian function is the hallmark of a natural menopause. In midlife women, it typically happens after twelve months of no menstruation. Premature menopause, whether it is natural or induced, is when it happens before the age of  $40^{[2]}$ . Delayed menopause, on the other hand, is when it happens after the age of  $58^{[3,4]}$ .

Different somatic, vasomotor, sexual, and psychological symptoms brought about by these hormone deficiencies affect women's Life Satisfaction (LS)<sup>[5]</sup>LS has been defined as "a person's general evaluations of his or her life" <sup>[6]</sup>LS are mostly relevant to human life and hope in relation to individual's thoughts and feelings in problematic condition. As a result of the experience many menopausal women go through, which lowers their LS, their general health standing has grown to be of global concern.<sup>[6]</sup>. Studies have shown that perimenopausal and early postmenopausal stages of menopause have been reported to have the most profound effects on LS (especially in symptomatic women)<sup>[7]</sup>.

Menopause has historically been more of a worry in wealthy nations, but as maternal mortality drops and life expectancy rises in developing nations, it is predicted that the rate of growth in the number of postmenopausal women will accelerate. Around 25 million women worldwide go through menopause each year. With an additional 47 million women entering the population each year, by the year 2030, it is projected that there will be 1.2 billion menopausal and postmenopausal women. Equally in sub-Saharan Africa, there may be roughly 5 million women who will reach middle age by the decade 2020–2030<sup>[8]</sup>.

Equally in sub-Saharan Africa, the amount of persons above 60 years is predicted to rise from 46 million in 2015 to 157 million by the year 2050, according to the World Health Organization (WHO). Similar to men, sub-Saharan African women have an average life expectancy of 76 years. A significant rise will also be seen in the number of women who go through menopause, which typically occurs between the ages of 45 and 55. Given that sub-Saharan African women will spend a higher amount of their lives in postmenopause, this population raises special considerations.

Menopausal symptoms had a negative impact on women's husband-related sexual activity as well as the women's everyday activities. <sup>[9,10]</sup>. The symptoms (psychological, somatic, vasomotor, and sexual), had impact on functional ability and general well being of women in this stage, symptoms like hot flushes, headache, sadness, bone pain, sleep disturbance, palpitation, irritability, loss of sexual desires, anger, loss of urinary control, fatigue have a detrimental impact on quality of life<sup>[11,12]</sup>.

It was found in a research of Nigerian women in Imo state, particularly in metropolitan areas, that their experiences with postmenopausal symptoms are comparable to those of those in other cultures. The majority of menopausal symptoms are actually common among them, but because of cultural norms that promote a

positive attitude about menopause, women with moderate symptoms can manage the symptoms on their own without seeking medical attention<sup>[10]</sup>. Women who experience moderate to severe menopausal symptoms, however, view them as serious health issues and seek therapy<sup>[13]</sup>.

The moods of women going through menopause are impacted by changes in hormone production. Some women claim to have anger, despair, and mood swings, frequently experiencing extraordinary highs and severe lows in quick succession. Hormone changes can have a significant impact on women, and they frequently do<sup>[14]</sup>. Sometimes they feel completely overwhelmed, as if they have temporarily lost control of their lives<sup>[15]</sup>. Menopausal women's quality of life is greatly influenced by their roles, social circumstances, and cultural norms. Social interactions with others can have an impact on a person's life and overall well being<sup>[12,16]</sup>. They provide a woman with a significant amount of social support and assist her in coping with stressors and problems in life, which can have a significant psychological impact.

Therefore it is necessary to understand menopausal transition and its symptoms, the myths and facts that are related to it so that policy makers can include menopausal care in comprehensive sexuality education and health care personnel who attends to menopausal women can support the healthy transition into menopause.

#### 1 DEVELOPMENTAL STAGES FROM MENARCHY TO MENOPAUSE

SN	Developmental Stages & Age	Hormonal Level	Diagnosis
1	Unset of menstruation (12-16)	Normal hormonal level(Estrogen	Reproductive stages
		and progesterone)	
2	Reduction in quality and quantity of	Reduced hormonal level	Partly reproductive
	menstruation (35-40)		and Pre-menopause
3	Fluctuation of menstruation (41-49)	Reduced hormonal level	Peri menopause
4	Final stoppage of menstruation (50-55)	Seization of hormone and	Menopause
		menstruation	
5	12 consecutive months without	Reduction in sizes of reproductive	Post menopause
	menstruation (55 and above)	organ	

# Hormone Levels of the Different Stages through Menopause adapted from Cleveland Clinic 2019 [16].

The body starts to produce less estrogen, due to the menopause's alteration of the hormone balance, some of the negative signs that women experience in this stage are brought on by this drop in oestrogen<sup>[16,17]</sup>. While the menopause is a natural part of aging, some factors, such as chemotherapy, autoimmune diseases, pelvic radiation therapy, oophorectomy and hysterectomy, and illnesses like Turner syndrome, can cause the menopause to begin before a woman clocks 40, this is otherwise referred to as early ovarian failure.

## **Stages of Menopause**

According to Field-Springer et al<sup>[1]</sup>, the early and late peri-menopause as well as early and late post-menopause phases of the spontaneous transition process of natural menopause can be distinguished. According to the

National Institute on Aging National Institutes of Health U.S. Department of Health and Human Services the menopausal transition consists of three stages:

- (1) Peri-menopause: This starts with fluctuation mostly a number of years before the final cessation of monthly periodic flow;
- (2) Menopause: This is the end of the monthly periodic flow, it is usually established twelve months after cessation of menstruation; and
- (3) Post-menopause: Are the years following menopause, this vary depending on individuals.<sup>[18]</sup>.

The start of the endocrinological, biochemical, and clinical signs of impending menopause is known as the perimenopause, which occurs before menopause. [19] The 2018 postulation made by Shukla et al., [20] stated that the transition time can be divided into three stages or phases, which includes the following:

## **Stages**

**Peri-menopause**: It often starts in women around the age of 40 and can extend up to 8 to 10 years prior to natural menopause, which is why it is also known as "around the end of menstruation." The production of estrogen gradually declines during this time. Perimenopause is marked by irregularities in the menstrual cycle, such as shortening of the menstrual cycle, shorter or longer blood flow duration, or excessive bleeding; as well as a rise in mood problems, insomnia, and hot flashes<sup>[21]</sup>. The climacteric transition is a result of biological aging, which often happens over a period of years and is not rapid or abrupt.

**Menopause:** Also known as the "final stage which draws curtains of menstrual cycle in a woman. The ovaries stopped producing eggs at this point. Whenever a lady goes 12 months without having her menstruation (one year). However at this point the woman is at the risk of being beset with some health challenges like hot flashes, daytime and night sweats, a decline in libido, weight gain, hair loss, uneasiness and anxiety, as well as mood swings, impatience, fatigue, temporary loss of memory, etc.

**Post Menopause:** Are the years after menopause ('after the end of menstruation'). During this stage, menopausal symptoms, such as hot flashes will begin to subside for most women. However, the woman at this time is at risk of being beset with some health issues such cardiovascular illnesses, sleeplessness, osteoporosis, breast cancer, and urinary tract infections etc <sup>[22]</sup>.

	Menopause (Final Menstrual Period)	
	12 Months After	
Pre- Menopause	Perimenopause	Post-menopause

**Stages of Menopause** 

#### 2 Menopausal Symptoms

The following are the symptoms of menopause which can impair some women's everyday activities and sense of wellbeing throughout the changeover phase.

# **Sexual Symptoms of Menopause**

Typically, the menopausal transition is accompanied by irregular menstrual cycle. The ovaries' reaction to gonadotrophins from the pituitary. Leutinising Hormone (LH) and Follicle Stimulating Hormone (FSH) decrease. This result in less ovulation and shorter follicular phases (shorter menstrual periods), reduced progesterone synthesis and irregular cycle. Subsequently, estrogen production ceases while sexual desire and libido decrease, with smaller less full and firm breasts accompanied by dyspareunia<sup>[21]</sup>,.

## Mental and Emotional Signs of Menopause

This typifies loneliness, Feeling of anxiety, temporary memory loss, feeling of depression, irritability, insomnia, sexual dysfunction, infertility, psychological distress, social disruption. <sup>[22]</sup> During menopause, sleep disorder (insomnia), which is the most typical sign of depressive disorders and it includes:

- i. Disorders of continuous sleep the reduction in slow-wave sleep time, REM( Rapid Eye Movement) sleep abnormalities,
- ii. An early wake up trait of depressive disorders,
- iii. Problem with sleep the hallmark of anxiety disorders.

Insomnia is simply set to be the problem of sleep which deprive an individual adequate rest or brings about difficulty in having a sound asleep, It is closely related to the advancement of civilisation and the disconnection from the cycles of life at their natural state. [23].

#### **Vasomotor Symptoms of Menopause**

Many menopausal women have vasomotor disturbances commonly known as hot flushes (a sensation of warmth spreading from the chest area to the face and neck). The hot flushes are often accompanied by sweating and sleep disturbances. These experience may occur as often as 20 to 30 times a day and generally lasts 3 to 5 minutes [23]. Also there is usually osteoporosis, Since estrogen mineralizes bones which helps to prevent natural breakdown and weakening, but whose drop during menopause greatly accelerates bone loss.

## **Somatic Symptoms**

Somatic symptom disorder majorly features physical symptoms such as pain or fatigue that brings about major emotional distress and related problems<sup>[11]</sup>. Fatigue, anger, irritability, dizziness. The prevalence of any known depressive disorders may be triggered by menopause symptoms.

### MENOPAUSE MYTHS

## Myth 1:Menopause Begins at 50 and Above

Menopause might start at age 50, or 42, or 36, or 61. Menopause typically starts for women at age 52, but the decline in hormone can begin the process at any age between 30 and 60.

## Myth 2: Weight Gain is Inevitable in Menopause

Menopause is a time when weight increase is inevitable. It may be true that weight gain during menopause is more complicated and involves more than just "calories in, calories out." Ovaries produce fewer sex hormones as a woman enters perimenopause and menopause, which may lead to hormonal imbalance. Body might attempt to defend itself in response therefore physical exercise is necessary to reduce the increase in weight.

## Myth 3: There's no Difference Between Natural and Surgical Menopause

It's imperative that women understand the differences between surgical and natural menopause. Instead of the longer transition of natural menopause, a woman who has a total surgical hysterectomy suffers an instantaneous and profound alteration in hormonal balance, virtually overnight.

## **Myth 4:** Menopause Will Decrease Libido

At any age, having sex may be fun and beneficial, However, many women have been mis informed that spermatozoa will be stored in their abdomen, since they are no longer menstruating, and that a decline in libido is a "natural" component of aging. It is a significant problem for many women in my practice.

## **Myth 5:Hot Flashes is Mandatory**

Although menopause and hot flashes are usually always associated in the media, the initial signs of menopause might actually be any of these symptoms.

# **Myth 6:Female Hormone Completely Stops at Menopause**

There is still have hormones, though reduced in production, no matter how far past menopause has started. The adrenal glands are the primary producers. In actuality, the adrenals create 50% of the estrogen and progesterone throughout menopause.

## Myth 7: Age at Menache Relates to Age at Menopause.

The exact reverse is true for a lot of women. Many women starts menopause earlier, despite the fact that they started menstruating later than usual. Although it is extremely difficult to predict when menopause may start, here are some questions to consider. The year of unset of ones mum menopause, when she started making the adjustments is a good guide. If you are a smoker, smoking may cause menopause to occur early. Drinking alcohol may cause menopause to occur later. Have you ever been pregnant, the number of pregnancies indicates a delayed menopause.

## **Myth 8:Physical Symptoms Only Signifies Menopause**

Feeling depressed or blue may happen, and this can occasionally be compared to a "raving madman." There may be feelings of agitated and worries, due to hormonal changes during peri-menopause and menopause, many women report unsettling changes in their emotions, memory, and focus. Mood swings could be brought on by variations in estrogen and progesterone levels. Reduced progesterone can make women at this stage more irritable and moody.

# Myth 9: The Best Way to Get Through Menopause is to Take Hormones

It's crucial to keep in mind that when it comes to one's body and health, choices are always available. Given the potential hazards and side effects of hormone replacement therapy (HRT), it is extremely important to be aware of your alternatives<sup>[26]</sup>.

#### MENOPAUSE INTERESTING FACTS

It can be frightening to approach menopause, during the perimenopausal years there may be a subliminal fear that going through menopause will make one less of a lady. Women might question and be worried if the prime has passed.

## **Menopause Engenders Hot Flashes**

The most commonness menopausal symptom is hot flashes. This may be an alterations in the hypothalamus and it can result in hot flashes.

## There May Be Headaches

Because of hormonal changes, menopausal women may experience headaches like never before. If a woman have ever experienced headaches around the time of your period or while using oral contraceptives, then this is most likely to occur.

## **May Cause Sleep Disturbance**

Perimenopause can cause disruptions in sleep. This may be caused in part by nighttime hot flushes.

## May Cause Brain Fog Up

There could be issues with memory or clarity of thought. This may be caused in part by hot flashes, commonly known as night sweats, insomnia, and interrupted sleep.

## **May Cause Emotional Roller Coaster**

Women going through menopause are more likely to suffer mood fluctuations that are unlike anything they have ever known.

#### There May be Vaginal Dryness

As estrogen levels decline, women commonly feel dryness and other vulvo-vaginal issues as itching, discharge, pain, or burning.

# There May be Reduced Libido

Women going through menopause could also have less of a desire for sex. On the other side, they might recur with stronger than typical sexual desire.

#### **Embarrassing Leakage is Likely**

Urinary incontinence may be a problem. This suggests that uncontrollable urine leakage may exist. This might be brought on by decreasing estrogen causing the lining of the urethra to thin.

## **Skin Changes May Occur**

It's possible for the skin to become less elastic and wrinkled. It could get drier than usual. Skin thickness and collagen are lost when estrogen levels are low.

#### Changes in Hair Growth.

The hair will be thinner, and may grow in unpleasant places, such as on chin or upper lip. This appears to be caused by a change in the ratio of androgen to estrogen hormones.<sup>[27]</sup>

#### MANAGEMENT OF MENOPAUSE

There are several treatments that may be helpful if menopausal symptoms become severe enough to start negatively affecting daily living and functional ability. Depending on the symptoms and medical history. <sup>[28]</sup> The position of Consumer Education Committee of The North American Menopause <sup>[27,28]</sup>majorly spell out these symptoms and their management techniques.

## Management of Vasomotor Symptoms of Menopause

**Hot Flushes:** These are the most common symptom experienced by women during menopause both during the day and at night. When it occurs in the night is known as night sweats. However, obese women experience more hot flashes. It is imperative to note that hot flushes is like a mixed bag, as the case may be, it may be mild and manageable, moderate and bothersome, or severe and incapacitating.<sup>[28,29]</sup>

Treatment usually depends on its severity and it is individualized.

- a. Lifestyle Changes In the same vein, women with hot flushes are more sensitive to their environment as sensitive thermostat is ingrained in their brain. Staying cool and reducing stress will be very helpful in this regard. Other preventive measures would include avoidance of things that could trigger hot flush like warm rooms, hot drinks, hot foods, alcohol, caffeine, bright lights, excess stress, and smoking; and engage in light regular exercises; adequate rest; use cotton clothing and bed linens (they do not generate heat) dress in layers so that some can be removed if the symptoms occurs and maintaining a healthy weight.
- **b.** Nonprescription Remedies Hot flashes are minimized by supplements that contains soy isoflavone like Promensil, Tofu. In addition, remedies like Remifemin that contain herbs like black cohosh reduce hot flashes.
- c. Prescription Therapies Hormonal options like Hormonal Replacement Therapy, have been found to reduce hot flashes though such options have their different side effects. Women's hot flashes can be reduced by several drugs used to treat depression. These include escitalopram, venlafaxine, and paroxetine (Paxil), among others (Lexapro). Hot flashes are less frequent when taking the medication gabapentin (Neurontin), which is also used to treat epilepsy, migraines, and nerve pain. Sleeping pills may not completely stop hot flashes but they can prevent insomnia.

## **Management of Sexual Symptoms of Menopause**

Vaginal Dryness/Atrophy: Dryness, stinging, burning, discomfort, and pain in the vagina during sexual activity are common symptoms during menopause. Other vaginal related symptoms include; less elasticity;

decreased secretions and lubrication and veganism's (involuntary tightening of vaginal muscles). These symptoms have a significant effect on the quality of women's life as they negatively affect sexual satisfaction. These vaginal related symptoms may occur in the early phase of the menopausal transition, or later years of declining estrogen levels. These symptoms worsen with time unlike hot flashes due to lack of estrogen and aging process<sup>[3,4]</sup>, pointed out that the treatment of these symptoms include;

# i. **Nonhormonal Remedies**. Examples include:

- (a) **Vaginal Lubricants** Application of lubricant reduce discomfort with sexual activities (intercourse). Examples are; K-Y Jelly, Astroglide, K-Y Silk-E.
- (b) **Vaginal Moisturizers** used to line the wall of the vagina and maintain vaginal moisture. Example are; Replens, K-Y Liquid beads.
- (c) **Sexual Stimulation Frequently** This promotes blood flow and secretions to the vagina.
- (d) **Vaginal Dilators** This can be used to dilate, stretch and enlarge the vagina after many years of severe vaginal atrophy, especially if sexual activity is infrequent and cases of involuntary tightening of vaginal muscles and fear of some or all types of vagina penetration. (vaginismus).
- ii. **Pelvic Muscles Exercises (kegel exercises)** Help to strengthen both weak and relax pelvic muscles as well as vaginal muscles and also reduce episodes of incontinence.
- iii. **Vaginal Estrogen Therapy** –This helps to restore a healthy vaginal pH, it also increases the vaginal tissues' thickness and suppleness, increases vaginal secretions, and relieves vaginal dryness and discomfort with sexual activity.

#### Management of Menopause Psychosocial Symptoms

Depression and Irritability: Selective serotonin reuptake inhibitors (SSRIs), a type of antidepressant frequently prescribed to menopausal women because they can lessen hot flushes, are another type of antidepressant e.g citalopram (Cipramil), dapoxetine (Priligy), escitalopram (Cipralex), fluoxetine (Prozac or Oxactin) SSRIs have a high effectiveness rate, but they can also cause adverse effects like nausea, anxiety, and decreased libido.<sup>[30]</sup>

#### **Management of Somatic Symptoms**

Somatic symptom disorder may benefit from psychotherapy, often known as talk therapy. Drugs may occasionally be included, especially if there is feeling of depression. Massage therapy, Yoga, moderate exercise and physical activities, the women is advised to join menopausal women group, to verbalize anxiety and seek help from health care practitioner<sup>[31]</sup>

# **Management of Osteoporosis**

**Take Enough Calcium and Vitamin D:** To ensure you get enough calcium, consume two to four servings of dairy products and other foods high in calcium each day. Similarly, bones in fish (such canned salmon and sardines), broccoli, and legumes should be consumed. Get 1,200 milligrams of calcium each day as a goal. Vitamin D supplements are also encouraged, and it can be gotten from early morning sunshine

**Regular Light Exercise:** Walking instead of using lift, kegel exercise to strengthen pelvic floor muscle, prevent uterine prolapsed and urine leakage.

## **Others Treatments are:**

Hormone replacement treatment (HRT): There are several types of HRT that can be used, and they are all designed to replace the oestrogen that is lost when the ovaries stop making it. HRT comes in three primary varieties:

**Cyclical HRT** - Oestrogen and progesterone are present in cyclical HRT, which is recommended for women who are still having periods but are having symptoms.

**Oestrogen-Only HRT** - For women whose wombs and ovaries have been removed, oestrogen-only HRT is an option.

**Continuous-Combined HRT** - For post-menopausal women who have gone more than a year without having their period, continuous combination HRT is recommended.

Night sweats, vaginal discomfort, and hot flushes can all be successfully avoided with HRT. Long-term use has also been shown to help prevent bowel cancer and osteoporosis. Although using HRT has advantages, there are also hazards. Studies have revealed a connection between HRT and breast cancer and stroke in female patients<sup>[18]</sup>

**Tibolone:** Similar to HRT, post-menopausal women frequently utilize tibolone in place of combined HRT. This can lessen night sweats, hot flashes, and sexual anxiety.

**Clonidine:** Originally developed to treat high blood pressure, clonidine has been shown to help some women have fewer hot flashes and night sweats.

#### HERBAL TREATMENTS FOR MENOPAUSE

There are several homeopathic treatments that are thought to lessen symptoms, including.

**Black Cohosh:** This herbal treatment for menopause has undergone extensive testing. Studies have shown that black cohosh, which is made from the root of the plant, can aid with hot flushes. Please be aware that those with liver issues may not be able to utilize this menopause cure.

**Wild Yam:** Popular herbal treatments for menopause include wild yam lotions and supplement pills. The natural substances found in yams resemble human hormones like progesterone and estrogen. Although no clinical trials have demonstrated evidence of this alleviating symptom, several women find this to be an alternative to HRT.

**Red Clover:** On the list of herbal treatments for menopause, red clover is a well-liked and well-known supplement. Despite the fact that many women use red clover to reduce menopause symptoms researches are still ongoing.<sup>[27]</sup>.

#### DIETARY NEEDS AND HEALTH PROMOTION DURING MENOPAUSE

The following dietary groups should be a goal for women during menopause<sup>[9]</sup>.

**Dietary Guidelines Typically Adopted for Menopause:** Eat a variety of foods during menopause to obtain necessary nutrients for this age.

**Increase Intake of Iron:** Eat at least three servings of foods high in iron each day to boost your iron levels. Non fatty red meat, chicken, fish, eggs, leafy green vegetables, nuts, and enriched grain products are all good sources of iron. The daily recommended intake of iron for older women is 8 milligrams.

Consume Enough Fiber: An adult woman needs about 21 grams of fiber daily on the average.

This can be supplied from whole-grain breads, cereals, pasta, rice, fresh fruits, and vegetables.

**Consume Fruit And Vegetables:** Each day, consume at least 1 1/2 cups of fruit and 2 cups of vegetables e.g Vegetable smoothies, almond nuts, carrots, oranges, grapes, leafy vegetables and generally make your plate colorful with varieties of vegetables.

**Examine Labels:** Choose wisely to lead a healthy lifestyle, by reading and using the information on the package label, to avoid stimulants that can spike the symptoms.

**Take Lot of Water:** The general rule for adult is to consume eight glasses of water per day, that covers the majority of healthy persons' daily needs. Menopausal women should drink more, to cool their body and prevent effect of hot flashes.

**Maintain a Healthy Weight:** by eating fewer meals high in fat and eating smaller portions if you are overweight. Don't skip meals, engage in regular exercise, weight check and body mass index checking.

**Limit Intake of Foods High In Fat:** 25% to 35% of your daily calories should come from fat, at most. Additionally, keep saturated fat to no more than 7% of your daily calorie intake. Increased cholesterol and heart disease risk are both caused by saturated fat, found in cheese, full milk, ice cream, and fatty foods, avoid

these food. Also avoid trans fats, which are present in some margarine, many baked goods, and vegetable oils, and keep your daily cholesterol intake to 300 milligrams or less.

**Reduce Salt And Sugar:** It should be used in moderation since consuming too much sugar, sodium can lead to diabetes and high blood pressure. Additionally, avoid foods that have been smoked, salted, or charbroiled because they have a lot of nitrates in them, which have been related to cancer.

Limit Alcohol Intake.: To one drink or less each day.

Soya: It contains substances that resemble estrogen, soy is thought to be a potent treatment for menopause.

#### **CONCERNS OF PUBLIC HEALTH**

Many of these non-communicable diseases and the related mortality can be avoided with proper nutrition, a healthy lifestyle, and frequent exercise. One of the significant risk factors for all of these non-communicable diseases is being overweight or obese, but these conditions can be avoided by following a balanced diet and engaging in regular physical activity<sup>[9]</sup>. To stay up with any changes to the body, there are times in our lives when we must modify our lifestyle and eating practices, as a result of menopause, women will need less of some nutrients while needing more of others

It is therefore necessary for nurses to have better understanding of menopausal symptoms and encourage women to speak out their feelings and seek medical care appropriately to relieve symptoms of menopause.

### ROLE OF PUBLIC HEALTH

- Nurses should give health information that will improve satisfaction with life of women in menopausal stage
- Regular medical checkup should be encouraged, A yearly physical examination that should examine blood pressure, bone density, and blood sugar levels,
- Efforts should be made through health information and screening to improve the overall health of
  midlife women by reducing the effects of those elements that can be addressed and controlled, such as
  co-morbidity problems.
- Inform premenopausal and perimenopausal women on healthy diet, focusing on the consumption of foods high in fiber, micronutrients, phytochemicals, and anti-oxidants.
- Regular light exercise and change in lifestyle are important in order for them to be able to cope with the challenges associated with menopause.
- Dispel misconceptions about this critical stage of life, in order for them to directly address the difficulties, to relieve symptoms, enjoy sexual life and on the long run, prolong life.

- Community health practitioners would plan and execute programs and activities that is focused on the health and wellbeing of menopausal women in community setting (development of a nurse-led intervention that can improve the general well being of the group.).
- It is also expected that government, program planners and policy makers, may develop health programs, policy formulation and implementation in improving the satisfaction with life of women at this important phase of their life.

#### **CONCLUSION**

Every woman will eventually experience menopause, thus it is important to raise knowledge of the indications and symptoms of this phase to help women prepare for it, live healthier lives and contribute to economic development of the family and country. Even though there are various diseases, there is really only one state of health."Generally speaking, the best informed man is the most successful man in life." This led to the notion that: Nutritionists and public health professionals should launch a program to educate people about healthy lifestyle during menopausal period, in order to lessen their symptoms and risk of developing chronic non-communicable diseases. This will help Inform premenopausal, perimenopausal and menopausal women on an appropriate diet, with a focus on micronutrients, phytochemicals, and anti-oxidants as well as a high-fiber diet. Finally, this will help them manage the difficulties experienced during menopause, dispel the myths surrounding this critical stage of life so that people can tackle difficulties head-on, get symptoms under control, enjoy sexual activity, and ultimately live longer. Family support, especially from the husband, is advised at this vital time. Government and non-government organizations should encourage health-related programs on comprehensive sexuality education, which includes menopause, as women who are nearing menopause typically need time and information rather than medication

#### Supporting and sponsoring financially

Nil

## **Conflicts of Interest**

There are no conflicts of interest

#### REFERENCES

- [1] Field-Springer K, Randall-Griffiths D, Reece C. From menarche to menopause: Understanding multigenerational reproductive health milestones. Health Communication. 2018 Jun 3;33(6):733-42.
- [2] Oloyede OA, Obajimi GO. Symptomatology of menopause among suburban Nigerian women. Tropical Journal of Obstetrics and Gynaecology. 2018 Oct 10;35(2):188-91.
- [3] Sasanpour M, Azh N, Alipour M. The Effect of a Midwife-Based Group Discussion Education on Sexual Dysfunction Beliefs in Rural Postmenopausal Women. International Journal of Women's Health. 2020;12:393.

- [4] Fitzpatrick MB, Thakor AS. Advances in precision health and emerging diagnostics for women. Journal of clinical medicine. 2019 Sep 23;8(10):1525.
- [5] Research on the menopause in the 2000s, WHO Technical Report Series 866, Geneva: World Health Organization. Public Medical Review, 2(2) 92-99.
- [6] Hybholt M. Psychological and social health outcomes of physical activity around menopause: A scoping review of research. Maturitas. 2022 Aug 3.
- [7] Olufunke AM, Adekunbi FA, Oyebanji OO, Damilola AO, Mattew OI. Perceived Influence of Menopausal Symptoms on Quality Of Life among Market Women Traders in a Semi-Urban Town, Osun State, Nigeria.
- [8] Alam MM, Ahmed S, Dipti RK, Hawlader MD. The prevalence and associated factors of depression during pre-, peri-, and post-menopausal period among the middle-aged women of Dhaka city. Asian Journal of Psychiatry. 2020 Dec 1;54:102312.
- [9] Silva TR, Oppermann K, Reis FM, Spritzer PM. Nutrition in Menopausal Women: A Narrative Review. Nutrients 2021, 13, 2149. Nutrition in Gynecologic. 2021:51.
- [10] Ameh N, Madugu NH, Onwusulu D, Eleje G, Oyefabi A. Prevalence and predictors of menopausal symptoms among postmenopausal Ibo and Hausa women in Nigeria. Tropical Journal of Obstetrics and Gynaecology. 2016 Sep 1;33(3):263.
- [11] Kanis JA, Harvey NC, McCloskey E, Bruyère O, Veronese N, Lorentzon M, Cooper C, Rizzoli R, Adib G, Al-Daghri N, Campusano C. Algorithm for the management of patients at low, high and very high risk of osteoporotic fractures. Osteoporosis International. 2020 Jan;31(1):1-2.
- [12] Avis NE, Crawford SL, Greendale G, Bromberger JT, Everson-Rose SA, Gold EB, Hess R, Joffe H, Kravitz HM, Tepper PG, Thurston RC. Duration of menopausal vasomotor symptoms over the menopause transition. JAMA internal medicine. 2015 Apr 1;175(4):531-9.
- [13] Ohamaeme Moses C, Egwurugwu Jude N, Ezeala Galina C, Ohamaeme Chinyere R, Ebuenyi MC. Assessment of the Knowledge And Awareness of Menopausal Coping Strategies Among Women In Umuowa Community, Orlu Local Government Area, Imo State Nigeria. 2017
- [14] Pickar JH, Archer DF, Kagan R, Pinkerton JV, Taylor HS. Safety and benefit considerations for menopausal hormone therapy. Expert opinion on drug safety. 2017 Aug 3;16(8):941-54.
- [15] Soares CN. Depression and menopause: an update on current knowledge and clinical management for this critical window. Medical Clinics. 2019 Jul 1;103(4):651-67.
- [16] Yarelahi M, Karimi M, Nazarifar E, Rezaian E, Ghaedi M, Asadollahi A. Can Menopausal Education Enhance Marital Satisfaction of Middle-Aged Men?. Journal of Health Sciences & Surveillance System. 2021 Oct 1;9(4):272-7.
- [17] Kruse ML, Patel M, McManus J, Chung YM, Li X, Wei W, Bazeley PS, Nakamura F, Hardaway A, Downs E, Chandarlapaty S. Adrenal-permissive HSD3B1 genetic inheritance and risk of estrogen-driven postmenopausal breast cancer. JCI insight. 2021 Oct 10:6(20).

- [18] Vignoli A, Risi E, McCartney A, Migliaccio I, Moretti E, Malorni L, Luchinat C, Biganzoli L, Tenori L. Precision oncology via NMR-based metabolomics: A review on breast cancer. International Journal of Molecular Sciences. 2021 Jan;22(9):4687.
- [19] Velez MP, Alvarado BE, Rosendaal N, da Ca<sup>\*</sup>mara SM, Belanger E, Richardson H, Pirkle CM. Age at natural menopause and physical functioning in postmenopausal women: the Canadian Longitudinal Study on Aging. Menopause (New York, NY). 2019 Sep;26(9):958.
- [20] Shukla R, Ganjiwale J, Patel R. Prevalence of postmenopausal symptoms, its effect on quality of life and coping in rural couple. Journal of mid-life health. 2018 Jan;9(1):14.
- [21] Monteleone P, Mascagni G, Giannini A, Genazzani AR, Simoncini T. Symptoms of menopause—global prevalence, physiology and implications. Nature Reviews Endocrinology. 2018 Apr;14(4):199-215.
- [22] Lalo R, Kamberi F, Peto E. Menopausal symptoms and women's quality of life outcomes: Literature Review". EC Gynaecology. 2017;6(5):167-72.
- [23] Mirkin S, Graham S, Revicki DA, Bender RH, Bernick B, Constantine GD. Relationship between vasomotor symptom improvements and quality of life and sleep outcomes in menopausal women treated with oral, combined 17β-estradiol/progesterone. Menopause (New York, NY). 2019 Jun;26(6):637.
- [24] Avis NE, Crawford SL, Greendale G, Bromberger JT, Everson-Rose SA, Gold EB, Hess R, Joffe H, Kravitz HM, Tepper PG, Thurston RC. Duration of menopausal vasomotor symptoms over the menopause transition. JAMA internal medicine. 2015 Apr 1;175(4):531-9.
- [25] Tadayon M, Ilkhani M, Abedi P, Haghighi Zadeh M. The relationship between sleep quality and lifestyle in postmenopausal Iranian women: a cross-sectional study. Women & health. 2019 Sep 14;59(8):883-91.
- [26] Suzan TM. Evaluation of Post-menopausal Symptoms, It' s Effect on Females Quality of Life. International Journal of Nursing Didactics. 2016 Sep 30;6(9):01-10.
- [27] Gold EB, Crawford SL, Shelton JF, Tepper PG, Crandall CJ, Greendale GA, Matthews KA, Thurston RC, Avis NE. Longitudinal analysis of changes in weight and waist circumference in relation to incident vasomotor symptoms: the Study of Women'Health Across the Nation (SWAN). Menopause (New York, NY). 2017 Jan;24(1):9.
- [28] Pace DT, Chism LA, Kelly L. The role of nursing with the journal Menopause and NAMS over the last 25 years: contributions and collaboration. Menopause. 2018 Jun 1;25(6):579-85.
- [29] Liu T, Chen S, Mielke GI, McCarthy AL, Bailey TG. Effects of exercise on vasomotor symptoms in menopausal women: a systematic review and meta-analysis. Climacteric. 2022 Nov 2;25(6):552-61.
- [30] Ye M, Shou M, Zhang J, Hu B, Liu C, Bi C, Lv T, Luo F, Zhang Z, Liang S, Feng H. Efficacy of cognitive therapy and behavior therapy for menopausal symptoms: a systematic review and meta-analysis. Psychological Medicine. 2022 Feb 1:1-3.
- [31] Terauchi M, Hiramitsu S, Akiyoshi M, Owa Y, Kato K, Obayashi S, Matsushima E, Kubota T. Associations among depression, anxiety and somatic symptoms in peri-and postmenopausal women. Journal of Obstetrics and Gynaecology Research. 2013 May;39(5):1007-13.